

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~Method for the preparation of crosslinked enzyme aggregates, comprising the steps of~~

A method for preparing a crosslinked enzyme aggregate comprising:

A – providing a plurality of enzyme molecules in a liquid medium of enzymes,

B – contacting a precipitating agent with the enzyme molecules in the liquid medium for a time and under conditions suitable for aggregating the enzyme molecules, aggregating the enzymes in a the liquid medium, comprising a precipitating agent, thereby forming aggregated enzymes,

C – contacting at least one crosslinker with the aggregated enzyme molecules for a time and under conditions suitable for crosslinking the aggregated enzyme molecules and forming crosslinked enzyme aggregates, crosslinking the aggregated enzymes to one another by providing a crosslinking agent in the liquid medium,

wherein the crosslinker crosslinking agent is prepared by reacting a first and a second compound with each other, each having at least two reactive groups, the reactive groups of the first compound being primary amino groups, the reactive groups of the second compound being aldehyde groups for a time and under conditions suitable for formation of a crosslinker having at least two functional aldehyde groups, wherein the first compound has at least two reactive primary amino groups and the second compound has at least two aldehyde groups, and

wherein the aldehyde groups in said crosslinker are spaced further apart than the aldehyde groups in glutaraldehyde and can function to crosslink enzymes together, and

wherein the second and the first compound are combined in a molar ratio ranging from 10:1 to >1:1.

Claims 2-21 (Cancelled)

Claim 22 (New): The method of Claim 1, wherein said enzyme is a lipase.

Claim 23 (New): The method of Claim 1, wherein said enzyme is an esterase.

Claim 24 (New): The method of Claim 1, wherein said enzyme is a protease.

Claim 25 (New): The method of Claim 1, wherein said enzyme is at least one nitrilase, oxynitrilase, penicillin amidase or amino acylase.

Claim 26 (New): The method of Claim 1, wherein said precipitating agent is an inorganic salt.

Claim 27 (New): The method of Claim 1, wherein said precipitating agent is an organic polymer.

Claim 28 (New): The method of Claim 1, wherein said precipitating agent is an organic solvent.

Claim 29 (New): The method of Claim 1, wherein the second and first compound are combined in a molar ratio ranging from 4: 1 to >1:1.

Claim 30 (New): The method of Claim 1, wherein the crosslinker is prepared by combining the second and first compound in a molar ratio ranging from 2.5:1 to 1.5:1.

Claim 31 (New): The method of Claim 1, wherein the crosslinker is prepared by combining the second and first compound in a molar ratio of 2:1.

Claim 32 (New): The method of Claim 1, wherein the first compound comprises at least two carbon atoms, the termini of the backbone being defined as α and ω , respectively, the said termini both comprising the active groups.

Claim 33 (New): The method of Claim 1, wherein the first compound is at least one compound selected from the group consisting of diaminoalkanes, triamines, aromatic diamines, diamines having at least one hetero atom between the amino groups, and branched diamines.

Claim 34 (New): The method of Claim 1, wherein the second compound is a dialdehyde.

Claim 35 (New): The method of Claim 1, wherein the second compound is at least one compound selected from the group consisting of glutaraldehyde, glyoxal, 2,3-pentadione, 2,4-pentadione, 2,4-hexadione, 3,4-hexadione, 3-methyl-2,4-pentadione, and 3-ethyl-2,4-pentadione.

Claim 36 (New): The method of Claim 1, wherein the crosslinker is prepared prior to crosslinking the aggregated enzymes to one another.

Claim 37 (New): The method of Claim 1, wherein the crosslinker is prepared in a substantially protein free environment.

Claim 38 (New): A crosslinked enzyme aggregate obtained by the method of Claim 1.

Claim 39 (New): A crosslinker having at least two functional aldehyde groups prepared by:

reacting a first and a second compound for a time and under conditions suitable for formation of a compound having at least two functional aldehyde groups, wherein the first compound has at least two reactive primary amino groups and the second compound has at least two aldehyde groups, and

wherein the aldehyde groups in said crosslinker are spaced further apart than the aldehyde groups in glutaraldehyde and can function to crosslink enzymes together.

Claim 40 (New): The crosslinker of Claim 39, wherein the first compound is at least one compound selected from the group consisting of diaminoalkanes, triamines, aromatic diamines, diamines having at least one hetero atom between the amino groups, and branched diamines.

Claim 41 (New): The crosslinker of Claim 39, wherein the second compound is at least one compound selected from the group consisting of glutaraldehyde, glyoxal, 2,3-pentadione, 2,4-pentadione, 2,4-hexadione, 3,4-hexadione, 3-methyl-2,4-pentadione, and 3-ethyl-2,4-pentadione.

Claim 42 (Currently Amended): A method for crosslinking at least two protein molecules to each other comprising:

contacting said protein molecules with the crosslinker of Claim 39.

Claim 43 (New): A method for crosslinking a protein molecule to a carrier comprising:

contacting said protein molecule and said carrier with the crosslinker of Claim 39.

Claim 44 (New): The method of Claim 43, wherein said carrier is a solid carrier.